



Case Study – Rodent Facility May 2008-November 2008

History

Surrey Diagnostics were contracted by a large UK government run site to screen certain areas of their rodent facilities for airborne Laboratory Animal Allergens (LAA) - using our ENVIROSCREEN service.

They also required us (where necessary), to make suggestions for reducing LAA levels in areas where they were found to be higher than dictated in their H&S regulations.

Study Details

In May 2008 a number of air samples were collected from various sites around the facility. Two types of sample were taken:

- Static samples - aimed at measuring the average ambient LAA levels within a room.
- Personnel samples - taken using portable sampling pumps and aimed at measuring the average LAA levels that a member of staff is exposed to.

The study revealed two areas where a reduction in LAA levels would be desired. These were the Cage Wash Area and an Office Area.

An AiroCide™ ACS-100 unit was installed in the Cage Wash Area and a small ACS-25 unit was installed in the Office Area in August 2008.

In November 2008, these two areas were monitored for LAA levels again. This was to establish whether the actions taken by the Facility Manager (i.e. the installation of AiroCide™ technology), had succeeded in lowering the LAA levels in these two specific areas.

Results

There was a significant reduction in LAA levels in both of the test areas.

Cage Wash Area : Reduced from 179.9 ng/m³ to 20.0 ng/m³ **(89% reduction)**

Office Area : Reduced from 4.8 ng/m³ to <0.2ng/m³ **(100% reduction)**

Full details of the allergen monitoring results are shown on the following pages.

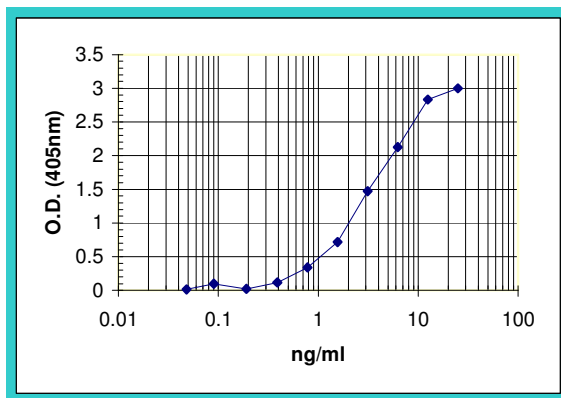
LAA Analysis Report (22nd May 2008)

Client : A. Client
 Lab No. : EM08/0880-0885
 Sample : 4 x Static Air Samples, 2 x Personnel Air Samples
 Analysis requested : MUP concentration

Method

Airborne allergens were sampled from the air onto 0.25µm PTFE filters using SMC Flite Pumps or Sidekick Pumps and an IOM Sampling head. Each filter was eluted in 2ml of buffer (PBS with 1% v/v Tween 20) for 24 hours. The buffer was then split into 2 x 1ml aliquots. One was stored and the other used for the analysis. The samples were analysed using quantitative Enzyme Linked Immuno-sorbant Assay (ELISA) tests, (INBIO Inc, Virginia, USA).

Test Calibration Graph



Results

Sample Reference	Sample Description	RUP Concentration
Room 1 (Static)	180 minutes @ 8 litres/min	1.7 ng/m ³
Cage Wash Clean (Static)	180 minutes @ 8 litres/min	1.3 ng/m ³
Cage Wash Dirty (Static)	180 minutes @ 8 litres/min	179.7 ng/m ³
Emma Room 2 (Personnel)	120 minutes @ 3 litres/min	15.0 ng/m ³
Paul Cage Wash (Personnel)	180 minutes @ 3 litres/min	55.6 ng/m ³
Office (Static)	180 minutes @ 8 litres/min	4.8 ng/m ³

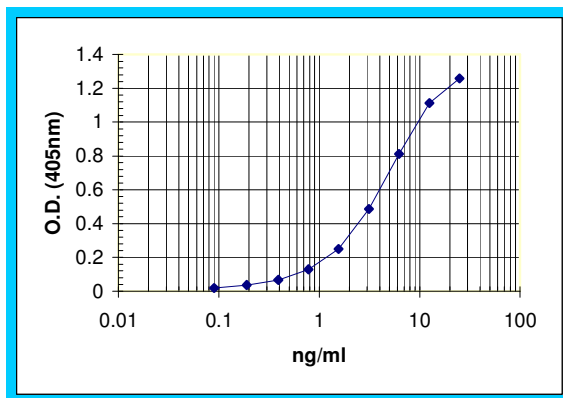
LAA Analysis Report (26th November 2008)

Client : A. Client
 Lab No. : EM08/0993-0994
 Sample : 2 x Static Air Samples
 Analysis requested : MUP concentration

Method

Airborne allergens were sampled from the air onto 0.25µm PTFE filters using SMC Flite Pumps or Sidekick Pumps and an IOM Sampling head. Each filter was eluted in 2ml of buffer (PBS with 1% v/v Tween 20) for 24 hours. The buffer was then split into 2 x 1ml aliquots. One was stored and the other used for the analysis. The samples were analysed using quantitative Enzyme Linked Immuno-sorbant Assay (ELISA) tests, (INBIO Inc, Virginia, USA).

Test Calibration Graph



Results

Sample Reference	Sample Description	RUP Concentration
Cage Wash Dirty (Static)	180 minutes @ 8 litres/min	20.0 ng/m ³
Office (Static)	180 minutes @ 8 litres/min	>0.2 ng/m ³

N.B. Due to the way in which the allergen levels are calculated >0.2 ng/m³ is the lowest level we can accurately state. It may well be zero.